REMARKS

By this Amendment claims 1 and 8 have been amended to state that the first and second adaptive feedback cancellation filters use the same filter coefficients (see specification at page 9, lines 4-6) and to define that at least one highpass filter is used to prevent low-frequency signals from entering the LMS algorithm and that the low-frequency signals in question are those of 'the signal path' (cf. FreqSelHP-blocks 20 in the embodiment of Fig. 2). Basis for the latter amendment is found in the description on page 8, lines 25-30 and in Fig. 2. Claims 3 and 9 have been clarified. Claim 4 has been corrected. Claim 10 has been added to define the features disclosed on page 9, lines 14-18. Entry is requested.

In the outstanding Office Action the examiner has rejected claims 1, 2 and 4-8 under 35 U.S.C. 103(a) as being unpatentable over Kates et al. (newly cited) in view of Gao et al., and he has rejected claims 3 and 9 under 35 U.S.C. 103(a) as being unpatentable over Kates et al. in view of Gao et al. and Engebretson. These rejections must be withdrawn.

Kates et al. disclose a feedback cancellation system for a hearing aid which includes a first filter in the feedback path that models the quickly varying portion of the hearing aid feedback path, and a second filter that is used either as a reference filter for constrained adaptation or to model more slowly varying portions of the feedback path.

The embodiment of Kates et al. referred to by the examiner (Fig. 9, col. 6, line 66 – col. 7, line 3) does not show two filters using the same filter coefficients, i.e., the two filters (Current Filter 132 and Reference Filter 934, respectively) each have their own LMS-algorithm blocks (LMS Adapt 130 and 936, respectively), which are fed by different input signals and thus clearly cannot guarantee identical filter coefficients for the two filters.

Further, the invention as defined in amended claims 1 and 8 differs from the teaching of Kates et al. in that the low frequency part of the signal of the signal path is filtered out from the input signals to the LMS-algorithm block and that a low frequency input for the LMS algorithm is provided by a second adaptive feedback cancellation filter and a noise generator.

The problem of avoiding low frequency parts of the signal of the signal path in the input to the LMS algorithm of the (first) adaptive feedback cancellation filter for estimating the feedback transfer function and replacing it with that provided by a second adaptive feedback cancellation filter and a noise generator is not at all mentioned in Kates et al., and a person of ordinary skill in this art would not in any way be encouraged to modify the system of Kates et al. to provide such functionality. A person of ordinary skill in this art would thus not be encouraged by Kates et al. to look anywhere else for such inspiration, and even if he did include the teaching of Gao et al. dealing with a feedback

cancellation scheme limited to a frequency band that encompasses all unstable frequencies as suggested by the examiner, he would not arrive at a method as defined in amended claim 1 providing 1) removal of the low frequency components of the signal of the signal path from the inputs to an LMS-algorithm of a first adaptive filter for feedback cancellation, 2) replacing the low frequency component of the input to the LMS-algorithm by a signal generated from a second adaptive feedback cancellation filter and a noise generator, and 3) where the filter coefficients of the first and second adaptive feedback cancellation filters are identical.

The examiner's rejections should be withdrawn and claims 1-10 allowed.

Respectfully submitted,

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